



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,827	08/04/2003	Kosuke Abe	Q76752	9192
23373	7590	05/24/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			THOMPSON, GREGORY D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,827

Applicant(s)

ABE, KOSUKE

Examiner

Gregory D. Thompson

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/4/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchsle et al in view of Oishi et al and Bues.

Fuchsle discloses a hybrid gas-insulated switchgear module with a cylindrical or tubular metal sealed tank 2 disposed such that an axial direction thereof is substantially horizontal, circuit breaker 12 (Fig. 2) inside tank 2 such that direction of an opening and closing operation thereof is substantially aligned with said axial direction of tank 2 (figs. 5, 6), disconnecting switches 13, 18 disposed at first and second ends of tank 2 electrically connected to breaker 12, and ground switches 17, 14 electrically connected between breaker 12 and switches 13, 18 in fig. 2. Fuchsle also discloses in col. 2, lines 8-58 switch apparatus, switchgear module 2 can form a multiplicity of switching configurations which can be completed on site by electrically interconnecting module 2 with other switchgear current connections to provide the desired switching configuration since tank 2 houses all the majority of all the switchgear required in a high-voltage switching installation. Fuchsle does not teach a single line switching unit configuration.

Oishi et al teaches a single line switching unit configuration, breakers $8w_1-8w_3$ electrically connected in a single row or unit in figs. 16-17 to shown horizontal switchgear interconnection.

Therefore, it is considered obvious to one of ordinary skill in the art at the time of the invention to take the teaching discussed with respect to col. 2, lines 8-58 in Fuchsle and the teaching of a single unit breaker (8w-8w₃) configuration taught by Oishi to construct a single line unit configuration of modules 2 enabling reduction in size and cost due to each module 2 housing the majority of all the required switchgear for easy on site installation of reduced installation space and time to provide an operatable switching station that is easy to replace modules 2 when desired.

Regarding claim 2, Fuchsle does not teach the spacing of claim 2. Fuchsle does disclose in col. 2, lines 41-49 space saving and fitting of module 2 as a replacement or expansion unit into a switchgear system without any problems. Therefore, it is considered obvious to one of ordinary skill in the art the time of the invention to have at least one pair of adjacent modules separated by a distance equivalent to a length of one module 2 to allow ease of expansion and replacement to provide a higher level switchgear system in a single and cost effective manner.

Regarding claim 3, it is considered obvious to one of ordinary skill in the art at the time of the invention to provide a gas-insulated container airtightly linked between the pair of adjacent spaced module 2 that contains a bus with a wire to electrically interconnect the disconnecting switches of the pair of adjacent spaced modules for proper switching operation of the modules.

Regarding claim 4, it is considered obvious to one of ordinary skill in the art at the time of the invention that bushings 6 or 7 disposed above facing disconnecting switches of the pair of adjacent spaced modules 2 would be electrically connected to each other

Art Unit: 2835

by a common overhead power line suspended between the bushings 6 or 7 to electrically interconnect the disconnecting switches for proper switchgear operational.

Fuchsle does not disclose the tank of modules 2 segregated into three separate gas compartments by spacers or the like. Bues discloses an hydride cylindrical case or tank 1 segregated into three separate gas compartments with switchgear components therein by spacers or partitions 2, 3 for electric arc fault protection for each compartment. Therefore, it is considered obvious to one of ordinary skill in the art at the time of the invention to provide the tanks 2 of Fuchsle with compartments separated by spacers or partitions 2, 3 with switchgear components, such as break 12 disposed inside the middle or second compartment and disconnecting switches 13, 18 disposed in the adjacent first and third compartments protected from electric arc by spacers, partitions 2, 3 to protect the switchgear components.

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kamata et al, Matsuda, Kobayashi et al disclose switchgear systems.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Thompson whose telephone number is (571)272-2045. The examiner can normally be reached on Monday-Thursday from 6:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (571)272-2800, ext. 35. The fax phone

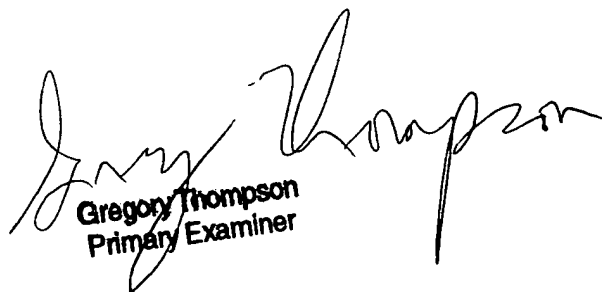
Art Unit: 2835

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thompson/ds

05/13/05



Gregory Thompson
Primary Examiner